

ABSTRACT

Electrical power generators and methods of producing power in a subterranean well are provided. In a described embodiment, fluid flow through a fluid conduit causes a member to displace or vibrate. The displacement of the member is utilized to induce strain in a piezoelectric material, thereby causing the piezoelectric material to produce electricity. Various means may be used to create turbulence in the fluid flow, thereby increasing displacement of the member, resulting in increased power output from the generator.